

## EMBOSS Align Results

## Water Results

Matrix	Blosum62
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19444737379758.output

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```
#####
# Program: water
# Rundate: Wed Feb 11 19:44:49 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19444737379758.output
#####
```

```
#-----
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EBLOSUM62
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 138
# Identity:      26/138 (18.8%)
# Similarity:   50/138 (36.2%)
# Gaps:         27/138 (19.6%)
# Score: 42.0
#
#-----
```

```
EMBOSS_001      90  STVKIPFRCRCNGDVQGSRL-----PIYVVPQDGLDAIARNVFNAF      132
   |:::.....|.l...l::l   |l::: |...l::l...
EMBOSS_001      257 SSTQVEVASLCAGQESQASELKQLSADQTLIYAFYDK-GSQIIEDSVKPVs      305
   |:::.....|.l...l::l   |l::: |...l::l...
EMBOSS_001      133 VTYQEIAAANN-----IPDPNKINVSQTLWIPLPCSCDKEEGSNVHLL      175
   |:::.....|.l...l::l   |l::: |...l::l...
EMBOSS_001      306 ISDVAITSTNNHTVAHGEIIDDQSMDE-----KKVARKSLTRI      345
   |:::.....|.l...l::l   |l::: |...l::l...
EMBOSS_001      176 AYSVGKGENTSIAIAKYGVTESTLLTRNKIDDPKLM      213
   |:::.....|.l...l::l   |l::: |...l::l...
EMBOSS_001      346 RTSVGASESQLIGREKEISEITHLILN--NDSQQVQV      381
   |:::.....|.l...l::l   |l::: |...l::l...
```



## EMBOSS Align Results

## Water Results

Matrix	DNAfull
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19531104533996.output

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```
#####
# Program: water
# Rundate:  Wed Feb 11 19:53:11 2009
# Align_format: srspair
# Report_file: /abi/extserv/old-work/water-20090211-19531104533996.output
#####

#=====
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EDNAFULL
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 1999
# Identity: 724/1999 (36.2%)
# Similarity: 724/1999 (36.2%)
# Gaps: 1073/1999 (53.7%)
# Score: 926.5
#
#
#=====
EMBOSS_001      1 atggcgtcgtctcaccgcgc-----ct-----ggcca      28
      |||..|||...|||..|||
EMBOSS_001    173 atagtgttgaggacagcctcaggatttcgtgtctcatctaaaggacca      222
      |||..|||...|||..|||
EMBOSS_001    29 cgcgcggcgcgcgtcgctctctctctctcgtg--cctctcgtg--cgcgcgcc      75
      |||..|||...|||..|||
EMBOSS_001    223 tcttgttggcgatt-----tctctgtagctgtctgagcggcaccc      262
      |||..|||...|||..|||
EMBOSS_001    76 gctctcgcgcgcacacttcaactcgcg--ggtg-----ggttcaggcacca-      118
      |||..|||...|||..|||
EMBOSS_001    263 g-----tgtggcaca-----gcagatgaaggagctt--aggacaag      297
      |||..|||...|||..|||
EMBOSS_001    119 --cctgcaagctcgcga-----tctctacacctc      146
      |||..|||...|||..|||
EMBOSS_001    298 gtccaggagtgtcagccagaggagatgtgcggtacaacctcatcaaggcgctc      347
      |||..|||...|||..|||
EMBOSS_001    147 ccccaacgcgcacca-----cctac--ggcaacctctgcgcgcgctt---      185
      |||..|||...|||..|||
EMBOSS_001    348 gccaaggccacacatcaattcc--actgagcaactctag--cg--ttatt      390
      |||..|||...|||..|||
EMBOSS_001    186 -caaca--cacacacctccccgacctctcgcg-----gcaacagg      224
      |||..|||...|||..|||
EMBOSS_001    391 gttcacgcca-----tattcgcattgacgatgc--aagg      423
      |||..|||...|||..|||
EMBOSS_001    225 cctccccgacggcagc-----ctt--tcc-----gcaacagg      246
      |||..|||...|||..|||
EMBOSS_001    424 cgtgcgcgaagcaggacaatcagagagtggtggtctgtgcacaactaatcaa      473
      |||..|||...|||..|||
EMBOSS_001    247 -----tctgcgcc-----cgtgcg-----      260
      |||..|||...|||..|||
```

EMBOSS_001	474	cagtgaagatcaggacctaagaatgatcgcgctctggggaacaagtgtg	523
EMBOSS_001	261	-----cgccaa-----tt-----cca-cggtc .             .	276
EMBOSS_001	524	atatggggcaaacacaataatcaggtatggttatggaaccagatgtc	573
EMBOSS_001	277	aaaatcccccttcgctgcccgtgc-----aacggcga--cgctggc-- .     ...     .            .  .     .     .	315
EMBOSS_001	574	caaatcagatcccatgccg-tgcattggtaagggatgatc--cttt	620
EMBOSS_001	316	cagtc-----ggacgcctcc-----ccatctacgtgtgcagccg       .     .        .     .     .     .	351
EMBOSS_001	621	cagtcacagagacttgcacagagcttggtgaatcagcttcacgaacco	670
EMBOSS_001	352	caggacgg-----gctc-----gacgcca----- .               .  .	370
EMBOSS_001	671	aagg--ggttgaagctctgttgagaaagagaagacagaacaagattag	718
EMBOSS_001	371	-----tc-----gcgcgca-----acgtgt-----tc      .  .     .       .	387
EMBOSS_001	719	ctaagaaatcaatggtgtgtgaatgataggaagtgtctaattgtgctt	768
EMBOSS_001	388	aaag-cct-tcgtcacc-----taccag-----gagatcgccg   .                 .       .       .	418
EMBOSS_001	769	aatgacctatc--caccattgaagatgggaccagatgaagaat--gctt	815
EMBOSS_001	419	cgcgcgaacaacatcc-----cgcgccc-----caa-----ca      .          .	445
EMBOSS_001	816	cc-----aaaaatgcaggaaaggaagccgaatcatagtccaagcaactca	860
EMBOSS_001	446	agataas--tgtcagc-----cagacg   .       .	465
EMBOSS_001	861	agttgaagttgcaagcttatgtgctgggcaagaagccacgctcaga-g	909
EMBOSS_001	466	ctgtgg--at--tcogctg-----ccct-----gca-gctgcgacgaag--   ...      .                .	498
EMBOSS_001	910	ctaaagcaattgtctgtctgatcagaccccttcacgattctacgaaggg	959
EMBOSS_001	499	-----gagga-----agctctaacgt--gatgca        .     .	521
EMBOSS_001	960	ttcccaaatatagaggattcagtgaaagccagtgctctatc-tcggatg--	1006
EMBOSS_001	522	cctcgcc-----tacagcgtc--gg-----  .         .	539
EMBOSS_001	1007	--tggccatcacagttacaacaatcatacagtgcccatggtgagatta	1054
EMBOSS_001	540	-----caagg-----ggagaacagctcgccga-----    .        .  .    .	562
EMBOSS_001	1055	tagatgatcaatcaatggtatgctgatgagaagaaggtggctagaagaagt	1104
EMBOSS_001	563	-----tcgc-----tgccaagtacgg--ggtg--acggagtcacagcttct        .               .       .	599
EMBOSS_001	1105	cttactcgaattaggacaagt--ggtgtgctcggag--gaatca	1146
EMBOSS_001	600	cacc-----agaata-----agatcgacgacccacagaa   .                 .    .	629
EMBOSS_001	1147	caacttattggcgagagaaagaatatctgaaat-----aacacacta	1191
EMBOSS_001	630	att-----gcagatggga-----cagattctagatgtcccgctccctgtgt          .       .       .       .	670
EMBOSS_001	1192	attttaaca-atgatagccagcaggttc--agg--gatctctgtgt	1234
EMBOSS_001	671	g-----cc-----gttcataca        .	682
EMBOSS_001	1235	gggggaatgggtggccttggaaaaccaccctagt.aagcggtgtttatcaa	1284
EMBOSS_001	683	-----tcagcgatccctcag-ctga-----tcacaa   .       .       .	707
EMBOSS_001	1285	agcccaaggctgagtgata--agttgcaagatgtttttgtacaaa	1330
EMBOSS_001	708	ctctgatgc-tcctccc-----ggatg-gc             .     .	729
EMBOSS_001	1331	tc--atgcgtcccttcattctgtagagctccttaggagtttggtgagc	1378
EMBOSS_001	730	acct-----atggattc  .     .	741

EMBOSS\_001 1379 aactacataaaggatcttctaagaaggagaactgttagaaaaatagatc 1428

EMBOSS\_001 742 accgcaggaa-----act-gcatccgctgcag-----ct-- 769  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1429 a--gcgataagaatcactagcat-cgatggaggataccgagttgactgg 1475

EMBOSS\_001 770 gcagt----- 774  
 | | | | |

EMBOSS\_001 1476 gcagttgaaaaggtctttagaaaaaagaagtgcctgattgttctatagtg 1525

EMBOSS\_001 775 ----tcaactacct-----accagctaaa----- 794  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1526 atttctcagatacctcagaatgggaccagataaaaccaacyttattcccc 1575

EMBOSS\_001 795 ctg-----cactgcagtacagaacaagg 818  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1576 ctggtgaaaagacaagccgaataattgtgactaca---agaa-aagag 1620

EMBOSS\_001 819 a----tgcc-----cgtcag-----tgccactgtgcaatggaacg 849  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1621 aatattgccaccattgc-tcagggaataatggaaatgtgca---caacc 1666

EMBOSS\_001 850 ctgaag-----cttg-gtga----- 863  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1667 ttaaagttcttaaacataatgatgcattgtgcctcttgagtgagaaggtta 1716

EMBOSS\_001 864 ---gacgaacggc-accggtt--gcggatc--aacaacgtgcgcctacag 905  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1717 tttgagga--ggctacatatttgatgatcagaacaa-----tccag 1756

EMBOSS\_001 906 ---tggttactccaacagttcatcgtctatc-atacaaacc-----ag 944  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1757 agttggtta---aaga-----agcaaaacaaatcctaagaag 1791

EMBOSS\_001 945 -----cattgcaa-----ct-----aat 957  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1792 tgcgatggaactgcccttcgaatagtgtgcataggtggattctctggcaaa 1841

EMBOSS\_001 958 cagacaacagcctgcc---agagaggag----- 982  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1842 ccgaccaaaagac---cccagaagagtgagaaaattgaacgagaatatcaa 1889

EMBOSS\_001 983 ---gatctgg-----gaggtcg-----cagttc--- 1002  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1890 tgotgagttggaatgaatccagagcttggaatgataagaacccgtccttg 1939

EMBOSS\_001 1003 -----gcta-----gggt-----ccatctggag-catgtctgttatct 1033  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1940 aaaaaagctatgatggtttaccataccatctcaagtcattgttttttatat 1989

EMBOSS\_001 1034 ccttccacatggtgtt-----gatcatta-tc-----tgttt 1064  
 | | | | | | | | | | | | | | | | | | | | | |

EMBOSS\_001 1990 ctgtcca-----tttccctgaagaccagatcattagtgaagcggtt 2033

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EMBOSS_001	5	cgtcgct-caacgc-----cggccctggcacgccc	32
		. . .	
EMBOSS_001	453	cgtgactccaacgtaagcttgatcttgttactcgccctgg-----	495
EMBOSS_001	33	ggcgccgcgtgcccttc--ctc-ctcgtctctctccgcgcceccg	77
		. . . . .           . . . . .           . . . . .	
EMBOSS_001	496	--ttgctgatcagctcaactg-ttctctcatctcttc	535
EMBOSS_001	78	ctc---cgcg-ccaattc--acctg-cggcg	103
		. . . . .           . . . . .           . . . . .	
EMBOSS_001	536	cacaagtgcgaagaaggatccaactcttatcagctccatggctcgg	585
EMBOSS_001	104	--tggttcaggcaccactgc-----aagtcgccatactcta	140
		. . .           . . .	
EMBOSS_001	586	attcgg-atcagtagcttctctgtctcgtccgaattccggaaact--	631
EMBOSS_001	141	caactcccccaacgccaccaacta-cggcaa--ctctcgtcgc--c	180
		. . .           . . . . .	
EMBOSS_001	632	-----cggcgcaagtctcctttcttcggcgtc	659
EMBOSS_001	181	cgtc-----tcaacacca-acagcc-----tccc-	204
		. . . .	
EMBOSS_001	660	cgatcgaagatcagctccaatccaccocgaagcaaatccacgcaga	709
EMBOSS_001	205	-----ga	206
		. . . . .	
EMBOSS_001	710	atcaagagaattgagaagaagagagcttgataccagatgtgcaga	759
EMBOSS_001	207	ctctc-----ctcggc-----ggcaac	222
		. .     . .	

[illegible]





## EMBOSS Align Results

## Water Results

Matrix	DNAfull
Open gap penalty	10.0
Gap extension penalty	0.5
Water output	water-20090211-19575081865795.output

[SUBMIT ANOTHER JOB](#)

```
#####  
# Program: water  
# Rundate: Wed Feb 11 19:57:51 2009  
# Align_format: srspair  
# Report_file: /ebi/extserv/old-work/water-20090211-19575081865795.output
```

**Notes**

```
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EDNAFULL
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 1466
# Identity:      606/1466 (41.3%)
# Similarity:    606/1466 (41.3%)
# Gaps:          701/1466 (47.8%)
# Score: 922.5
#
```

[illegible]

EMBOSS_001	408	-----cattgacgactgaacggcgctgcgcgaagcagga-----	440
EMBOSS_001	283	gccatc-----gcgcgcgaacgtgtcaaacgctctcgtcac-----tacc  .   .   .   .   .   .   .   .   .   .   .   .   .   .	323
EMBOSS_001	441	-caatcacagagatggatcttctgccaa-----taatacaacagtggaggtca	485
EMBOSS_001	324	gga-----gatcgcgcgc-----gcgaaca-----acatcccgcag	355
EMBOSS_001	486	ggacctaaaaagtgatcgcggtctgcgggaaacaagtgtgatgat-----gggc	531
EMBOSS_001	356	ccaaca-gataa-----atgtc-----agccacagcgtctg	385
EMBOSS_001	532	caaacacaacatatacaggatgggttatagacaaccagga-----tgtccaaat	576
EMBOSS_001	386	-gattccgcgtgcctgcagctgcgcagacaggag-aaggctctaacgtga	433
EMBOSS_001	579	cagattcccatcgcgtgcga-tg-----gttaagg-----gtga	610
EMBOSS_001	434	tga-cctcgctcacagcgtcggaacaaagggaga-----acagctgc	474
EMBOSS_001	611	tgcattcct-----ttca-gtc-caa-----gagaccttgtccagagcttg	648
EMBOSS_001	475	gcg-atc-gct-----gccaaagtacgggtgtacggaggtccacagcttc	514
EMBOSS_001	649	gtgaatcagcttctatgcacccaag-----gggttgaag-----c	683
EMBOSS_001	515	tc-----acaga-----ataaagatcgacagccccaagaattg	549
EMBOSS_001	684	ctctgtggagaagaagacagacagaaacagattta-----gctaagaatt-	728
EMBOSS_001	550	ca-----gatgggacagattctatagatgcccgctccctgtg	585
EMBOSS_001	729	caatggatgtgtgaatgatagga-agtgccta-at-----tg	763
EMBOSS_001	586	tgcgcttcattcaatcagcgataacctcagctgat-cacaaattgatgtctcc	634
EMBOSS_001	764	tgc-----ttaat-----gaact-----atccacat-tga-----	788
EMBOSS_001	635	tccgga-tggcacc-----tatg-----gattc-----accgcaggaaa--	668
EMBOSS_001	789	-----agagtggacacagattaaagaat-gcttccaaaatgcagggaaagga	831
EMBOSS_001	669	-----ctcgact-----cgctgcagctcaggt-----	694
EMBOSS_001	835	agccgaactatagtgtaacgaactcaagtgtaaggtgcgaagcttatgtgc	884
EMBOSS_001	692	---caacta-----ctaccagcttaaacatgca-----ctgcagtaaa	725
EMBOSS_001	885	tgggcagaagaagccgaacgctcagagctaaa-gaaattgtctctgatca	932
EMBOSS_001	726	ga-----acaagggatgcc-----gtca	744
EMBOSS_001	933	gaaccttatacagattctacagacagagg-ttccaaaattatagaggattca	981
EMBOSS_001	745	gt-----gccactgtgcaat-----gacagcgtg-----	771
EMBOSS_001	982	gtgaagcagtgct-ctatctcgga-----tgtgggcatacaaaagtacaaac	1026
EMBOSS_001	772	-----cttggtgagacgaac-----gcaccaggttc	798
EMBOSS_001	1027	aatacatcagctggccactgttgagattatagatgatacaatcaatgagtc	1076
EMBOSS_001	799	ggat-caaacacgtgcgcct-----acagtggttact-----caa	833
EMBOSS_001	1077	tgatgagaagaagtt-ggctagaagaagt-cttactcgcgatagagaca	1123
EMBOSS_001	834	cagttcatcgtg-----catcatcaaaaacagcctt-----gc-----	866
EMBOSS_001	1124	gttgttgt-gtctcggaggaaat-acaa-----ctttatggcgagag	1164
EMBOSS_001	867	-----aactaatcagac-----aac-----agcttc	888
EMBOSS_001	1165	aaagaataatctgaataaa-cacacttaatttaaacatatagaccagc	1213
EMBOSS_001	889	cagagagg--ag-gatct-----ggga-----ggtgc-----	913

```

EMBOSS_001      1214 -----aggttcaggtgatctctgtgtgggaatgggtggccttggaataa 1258
EMBOSS_001      914 -----agttcgctaggt-----ccatg----- 930
                  |||.||  |||  |||.|
EMBOSS_001      1259 ccaccctagtaagc--gggtgtttatcaaagcccaaggctgagtataagt 1306
EMBOSS_001      931 tggagcatgtctgtt-----atc----tccttcacatgggtgtg 966
                  |.| |.|.|.|||  |||  |||||.|||.|.|||.|
EMBOSS_001      1307 ttga-caagtatgtttttgtcacatcatgogtcctttca-ttctttag 1354
EMBOSS_001      967 a--tcattatctgttt 980
                  |  |||.|||.|||
EMBOSS_001      1355 agctccttaggagttt 1370

```

```

#-----
#-----

```



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## EMBOSS Align Results

## Water Results

Matrix: Biosum62  
Open gap penalty: 10.0  
Gap extension penalty: 0.5  
Water output: water-20090211-19593453477019.output

SUBMIT ANOTHER JOB

```
#####
# Program: water
# Rundate: Wed Feb 11 19:59:36 2009
# Align_format: srspair
# Report_file: /ebi/extserv/old-work/water-20090211-19593453477019.output
#####
```

```
#-----
#
# Aligned_sequences: 2
# 1: EMBOSS_001
# 2: EMBOSS_001
# Matrix: EBIOSUM62
# Gap_penalty: 10.0
# Extend_penalty: 0.5
#
# Length: 1521
# Identity: 628/1521 (41.3%)
# Similarity: 628/1521 (41.3%)
# Gaps: 566/1521 (37.2%)
# Score: 2769.0
#
#-----
```

```
EMBOSS_001 1 gcc-----aaactcaactgc-----gcggtg-----g 22
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 200 gcggtttatctgctggtgctcctcttgcgtagtagtggttggtggtg 249
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 23 cttcaggc-acc-----aaactg-----caagtcgcgcactc- 53
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 250 ctgctgatgaactaaaatgctgcatgtttctatcatgtttctcacaatg 299
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 54 -----ctacactccc-----ccaaacgcacacac 77
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 300 tagtatcatgtaactcactctccttgggtttttgtcctaatactcac 349
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 78 ctacggcaac-----ctcg-----tcgcgcgc-----ttc 102
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 350 ctt-ggcagcttgcatcatcttaactctcgagcttgccacactgagatc 398
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 103 aacaccc---ac---caccc-----tcc-cgcac---ctcctcggc-g 133
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 399 aaactcctggaacgcggctccagttcatccaactcttctccaacggcagg 448
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 134 ccaacg-gcctcc-cgcagcgcaagc---ctt---tctccgcgcccggt-c 174
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 449 aatcctgtaactccacgtaacgcttgagatcttggtactccgcgctggtgc 498
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 175 g-----ccgcacaaatccac-cgtcaaaatccctcgcgtgcgcgtgcaa 218
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 499 gctcatcagcc---tcaactcgt-ttctctcattcc-ctccac---a 539
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
EMBOSS_001 219 cggcgacgtcgccagctcggaacgcctccacatct-acgtgctgaagccg 267
      |||  |||  |||  |||  |||  |||  |||  |||  |||  |||
```

EMBOSS_001	540	agttgcagaagg-----aggtccaacctctctatcagctctccagt-gcct	582
EMBOSS_001	268	caggacgggtgc-----gacgccatcgcgcgcgaactgttcaacg-----	307
EMBOSS_001	583	cggactctggatcaggtcaactactgctctcgctcgaagtccgcgaacctt	632
EMBOSS_001	308	-----ccct-----cgtcaactacagaggaatgc-----c	332
EMBOSS_001	633	agggggcgaagtctctttctgcggtgcgcgtccgaagatcagctccaactc	682
EMBOSS_001	333	cgccgc-----gaacaacatccccgaccoccaaagaataaa-----gtca	373
EMBOSS_001	683	caccccaaggaacacattccacgc-gacatcagaagaatttgagaagcaa	731
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EMBOSS_001	782	aacaagaacacacagaagattcaggccaactagtttgagatgatctgtcca	831
EMBOSS_001	446	acagcgtcgcgaaggaggagaaacagctcgcgcgtcgtgccagtcacggg	495
EMBOSS_001	832	ac-----caac--aggatgtagc-cttcgcgcgcacgcgcga-----ccgag	871
EMBOSS_001	495	gtcagcg-----agtc-----cacg-----cttctca-----ccagaaga	525
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EMBOSS_001	526	a-----agatcg-acgacccacgaagaattg-cagatgg--gacagatt-	564
EMBOSS_001	922	atctccctactcacaga-cacacacagtcagcagctgcacacagatag	970
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EMBOSS_001	1171	agtcagaaggcaggtctcctgcacaaattctgctcgtttgcgacaaatgta	1220
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EMBOSS_001	825	ttactccaa-----cagttctcagctcatcatcaacaaacg-----cctt	864
EMBOSS_001	1370	ctcctctccaaaccocaaacccatattctccacccccaggcaggcgccccat	1419
EMBOSS_001	865	gcactaatcagacacacag-----cctgc--caga-----ga	894
EMBOSS_001	1420	gc-actgtgaatcgattggatgtcctgtcccaagaagacatctcgacgca	1468
EMBOSS_001	895	ggaggg-----atc-----tgaggag	908

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EMBOSS_001      1469  ggaggcggagggggacgaagggaacatatcgagcgaggaagcggagggtg      1518
EMBOSS_001      909  g-tcg-----cagttc-----gcta---ggcccat-----gtgg      933
      |  | |      | | . | |      . | |      . | | | |      | | . |
EMBOSS_001     1519  gatcggcattccccatttcaaggtactatactagtcattatagtagtag      1568
EMBOSS_001      934  agc-----atgtctgttacc-----      948
      . | |      | | | . . | | . |
EMBOSS_001     1569  tgcttttgcatcttagaaaaaaaatatgttcattagccattgagagctt      1618
EMBOSS_001      949  -----tccttcoaca--tg-gtgtt-----gat      968
      | | . . | | . | | | | | | |      | . |
EMBOSS_001     1619  ctgaagttgttgattttgttccaacccaactgtgagtttcagttcaggt      1668
EMBOSS_001      969  cattatctg--tttc-ctttg      986
      | | . . | | | | | | | | | |
EMBOSS_001     1669  catccactgatttcoactatg      1689

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